



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/719,191

11/21/2003

Chao Kan

139160USNP

3236

24587

7590

11/01/2007

ALCATEL LUCENT

INTELLECTUAL PROPERTY & STANDARDS

3400 W. PLANO PARKWAY, MS LEGL2

PLANO, TX 75075

EXAMINER

BURGESS, BARBARA N

ART UNIT

PAPER NUMBER

2157

MAIL DATE

DELIVERY MODE

11/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/719,191

Applicant(s)

KAN ET AL.

Examiner

Barbara N. Burgess

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11-21-03, 4-4-05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on November 21, 2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.
2. The information disclosure statement (IDS) submitted on April 4, 2005 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 7-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander et al. (hereinafter "Alexander", US Patent 7,269,657 B1) in view of Burt et al. (hereinafter "Burt", US Patent Publication Application 2005/0005202 A1).

As per claim 1, Alexander discloses a router for coupling into a computer network along which network traffic flows in a form of packets, wherein the network comprises a management system, the router comprising:

Art Unit: 2157

- at least one monitoring circuit coupled to the network, wherein the at least one monitoring circuit is operable to examine packets communicated to the router and to provide information associated with selected ones of the examined packets (column 1, lines 51-55, column 4, lines 30-40, column 5, lines 35-40; Alexander teaches the network is organized into domains. Each router in a domain monitors (examines) packets at its output link. Congestion (information associated with examined packets) can be detected from the monitored packets);
- circuitry for processing the provided information (column 5, line 38-39, column 11, lines 60-61; Alexander teaches the router putting together (processing) a congestion report. Alexander further teaches the router distinguishes (processing) between different flows it receives);
- circuitry for including the processed information into one or more packets (column 5, lines 39-40, column 11, lines 61-62; Alexander teaches sending a report (packets) on the congestion and sending a request (packets) for each flow that is distinguished. This information is transmitted to the manager in packets);
- circuitry for transmitting the one or more packets along the network to at least one node coupled to the network (column 5, lines 39-40, column 11, lines 61-62, Alexander teaches transmitting reports and requests for distinguished flows to the manager on the domain (network)).

Alexander does not explicitly disclose:

- wherein the at least one node is outside of the management system.

Art Unit: 2157

However, in an analogous art, Burt teaches proactive notification agents (router) transmitting notifications concerning healthcare information to users, customers, nurses, doctors, etc. Applicant's specification states that routers often include an agent that detects events on the network and reports the events to network management (page 2, lines 22-25). Burt teaches the agent sending notification to actual users and customers outside of management (paragraphs [0022-0024, 0027]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Burt's transmitting the one or more packets along the network to at least one node coupled to the network, wherein the at least one node is outside of the management system in Alexander's router to enhance system performance and user satisfaction, as system failures and business performance exceptions can be dealt with before the problems become significant and exert notable negative impact on the system performance or business in general (Burt, paragraph [0010]).

As per claim 2, Alexander discloses the router of claim 1, wherein the management system comprises a plurality of nodes operable to communicate according to a network management system protocol (column 8, lines 60-65, column 9, lines 49-55, column 20, lines 40-49; Alexander teaches a plurality of managers communicating to update tables using a protocol).

Art Unit: 2157

As per claim 7, Alexander discloses the router of claim 1 wherein the circuitry for transmitting is further for transmitting the one or more packets along the network to at least one node that is part of the management system (column 5, lines 39-40, column 11, lines 61-62, Alexander teaches transmitting reports and requests for distinguished flows to the manager on the domain (network)).

As per claim 8, Alexander does not explicitly disclose the router of claim 1, wherein the circuitry for transmitting is further for transmitting the one or more packets along the network to a plurality of nodes coupled to the network; and wherein the plurality of nodes are outside of the management system.

However, in an analogous art, Burt teaches proactive notification agents (router) transmitting notifications concerning healthcare information to users, customers, nurses, doctors, etc. Applicant's specification states that routers often include an agent that detects events on the network and reports the events to network management (page 2, lines 22-25). Burt teaches the agent sending notification to actual users and customers outside of management (paragraphs [0022-0024, 0027]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Burt's transmitting the one or more packets along the network to at least one node coupled to the network, wherein the at least one node is outside of the management system in Alexander's router to enhance system performance and user satisfaction, as system failures and business performance exceptions can be dealt with before the problems become significant and

Art Unit: 2157

exert notable negative impact on the system performance or business in general (Burt, paragraph [0010]).

As per claim 9, Alexander does not explicitly disclose the router of claim 1, and further comprising:

- wherein the circuitry for transmitting is for transmitting a first set of the one or more packets along the network to a first respective node coupled to the network;
- wherein the circuitry for transmitting is for transmitting a second set of the one or more packets along the network to a second respective node coupled to the network; and
- wherein the first respective node and the second respective node are outside of the management system.

However, in an analogous art, Burt teaches the agent receiving notification information and sending notifications to different customers based on the thresholds specified for each customer. At a particular threshold, notification is sent to a customer whereas at a different threshold, notification is sent to the doctor. Both are outside of management system (paragraphs [0023, 0026, 0131]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Burt's circuitry for transmitting first and second sets of packets to the first and second nodes respectively in Alexander's router in order that the appropriate and designated person is notified to perform necessary fixes (Burt, paragraphs [0024-0025]).

As per claim 10, Alexander does not explicitly disclose the router of claim 9, wherein the first set of the one or more packets corresponds to a first type of analysis performed by the circuitry for processing the provided information; and wherein the second set of the one or more packets corresponds to a second type of analysis, different from the first type of analysis, performed by the circuitry for processing the provided information.

However, in an analogous art, Burt teaches the agent performing notifications for customer system performance, application updates, clinical data, business data, database data, connectivity data. The analysis of these different monitored areas are reported to the appropriate customer or customer support system. Rules specify who is to be notified and how they are notified (paragraphs [0039-0117]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Burt's first and second type of analysis performed in Alexander's router to determine what actions need to be taken in response comparing counters to thresholds (Burt, paragraph [0118]).

As per claim 11, Alexander discloses the router of claim 1, wherein the at least one monitoring circuit is operable to examine packets in response to a set of criteria; and wherein the selected ones of the examined packets correspond to packets that satisfy the set of criteria (column 5, lines 36-45; Alexander teaches monitoring for congestion

Art Unit: 2157

(criteria) and packets that are in a congested state are reported to the manager).

As per claim 12, Alexander discloses the router of claim 1 wherein the network comprises the global Internet (column 1, lines 14-18, column 36, lines 50-52).

As per claim 13, Alexander discloses the router of claim 1 wherein the network is selected from a group consisting of a cell-based network and a packet-based network (Abstract, column 1, lines 15-18).

As per claim 14, Alexander discloses the router of claim 1 wherein the provided information comprises information copied from the examined packets (column 5, lines 35-50; Alexander teaches providing a congestion report based on packets monitored by the router).

As per claim 15, Alexander discloses the router of claim 1 wherein the provided information comprises information not included in the examined packets (column 6, lines 37-39; Alexander teaches detecting major changes in topology).

As per claim 16, Alexander discloses the router of claim 1 wherein the provided information is selected from the set consisting of packet time of arrival data, port arrival data, number of discarded packets, error packets, port utilization, and buffer utilization (column 5, lines 38-39; Alexander teaches detecting discarded packets).

As per claim 17, Alexander discloses the router of claim 1 and further comprising a plurality of routers, and wherein each router in the plurality of routers is for coupling into the computer network, and wherein each router of the plurality of routers comprises:

- at least one monitoring circuit coupled to the network, wherein the at least one monitoring circuit is operable to examine packets communicated to the router and to provide information associated with selected ones of the examined packets (column 1, lines 51-55, column 4, lines 30-40, column 5, lines 35-40; Alexander teaches the network is organized into domains. Each router in a domain monitors (examines) packets at its output link. Congestion (information associated with examined packets) can be detected from the monitored packets);
- circuitry for processing the provided information (column 5, line 38-39, column 11, lines 60-61; Alexander teaches the router putting together (processing) a congestion report. Alexander further teaches the router distinguishes (processing) between different flows it receives);
- circuitry for including the processed information into one or more packets (column 5, lines 39-40, column 11, lines 61-62; Alexander teaches sending a report (packets) on the congestion and sending a request (packets) for each flow that is distinguished. This information is transmitted to the manager in packets);
- circuitry for transmitting the one or more packets of a respective router along the network to at least one node coupled to the network (column 5, lines 39-40, column

11, lines 61-62, Alexander teaches transmitting reports and requests for distinguished flows to the manager on the domain (network)).

Alexander does not explicitly disclose:

- wherein the at least one node is outside of the management system.

However, in an analogous art, Burt teaches proactive notification agents (router) transmitting notifications concerning healthcare information to users, customers, nurses, doctors, etc. Applicant's specification states that routers often include an agent that detects events on the network and reports the events to network management (page 2, lines 22-25). Burt teaches the agent sending notification to actual users and customers outside of management (paragraphs [0022-0024, 0027]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Burt's transmitting the one or more packets along the network to at least one node coupled to the network, wherein the at least one node is outside of the management system in Alexander's router to enhance system performance and user satisfaction, as system failures and business performance exceptions can be dealt with before the problems become significant and exert notable negative impact on the system performance or business in general (Burt, paragraph [0010]).

As per claim 18, Alexander discloses the router of claim 17 wherein at least two of the routers in the plurality of routers are operable to include respective processed information into a respective set of one or more packets for transmission to a same

Art Unit: 2157

destination node (column 12, lines 25-50, column 13, lines 4-14; Alexander teaches interface and source routers transmitting flow to a same manager).

As per claim 19, Alexander does not explicitly disclose the router of claim 18 wherein the same destination node is outside of the management system.

However, in an analogous art, Burt teaches proactive notification agents (router) transmitting notifications concerning healthcare information to users, customers, nurses, doctors, etc. Applicant's specification states that routers often include an agent that detects events on the network and reports the events to network management (page 2, lines 22-25). Burt teaches the agent sending notification to actual users and customers outside of management (paragraphs [0022-0024, 0027]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Burt's transmitting the one or more packets along the network to at least one node coupled to the network, wherein the at least one node is outside of the management system in Alexander's router to enhance system performance and user satisfaction, as system failures and business performance exceptions can be dealt with before the problems become significant and exert notable negative impact on the system performance or business in general (Burt, paragraph [0010]).

As per claim 20, Alexander discloses a method of operating a router that is coupled into a computer network along which network traffic flows in a form of packets, wherein the network comprises a management system, the method comprising:

- operating a monitoring circuit to examine packets communicated to the router and to provide information associated with selected ones of the examined packets (column 1, lines 51-55, column 4, lines 30-40, column 5, lines 35-40; Alexander teaches the network is organized into domains. Each router in a domain monitors (examines) packets at its output link. Congestion (information associated with examined packets) can be detected from the monitored packets);
- processing the provided information (column 5, line 38-39, column 11, lines 60-61; Alexander teaches the router putting together (processing) a congestion report. Alexander further teaches the router distinguishes (processing) between different flows it receives);
- including the processed information into of one or more packets (column 5, lines 39-40, column 11, lines 61-62; Alexander teaches sending a report (packets) on the congestion and sending a request (packets) for each flow that is distinguished. This information is transmitted to the manager in packets);
- transmitting the one or more packets along the network to at least one node coupled to the network (column 5, lines 39-40, column 11, lines 61-62, Alexander teaches transmitting reports and requests for distinguished flows to the manager on the domain (network)).

Alexander does not explicitly disclose:

- wherein the at least one node is outside of the management system.

However, in an analogous art, Burt teaches proactive notification agents (router) transmitting notifications concerning healthcare information to users, customers, nurses, doctors, etc. Applicant's specification states that routers often include an agent that detects events on the network and reports the events to network management (page 2, lines 22-25). Burt teaches the agent sending notification to actual users and customers outside of management (paragraphs [0022-0024, 0027]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Burt's transmitting the one or more packets along the network to at least one node coupled to the network, wherein the at least one node is outside of the management system in Alexander's router to enhance system performance and user satisfaction, as system failures and business performance exceptions can be dealt with before the problems become significant and exert notable negative impact on the system performance or business in general (Burt, paragraph [0010]).

5. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander et al. (hereinafter "Alexander", US Patent 7,269,657 B1) in view of Burt et al. (hereinafter "Burt", US Patent Publication Application 2005/0005202 A1) and in further view of Applicant's Admitted Prior Art (AAPA).

As per claim 3, Alexander, in view of Burt, does not explicitly disclose the router of claim 2 wherein the network management system protocol is selected from a group consisting of a Simple Network Management Protocol, a Common Management Information Protocol and a Common Object Request Broker Architecture protocol. However AAPA teaches communication with management use one various standard protocols such as Simple Network Management Protocol (SNMP), the Common Management Information Protocol (CMIP), and the Common Object Request Broker Architecture (COBRA) protocol (page 2, lines 25-29).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate AAPA's network management system protocol is selected from a group consisting of a Simple Network Management Protocol, a Common Management Information Protocol and a Common Object Request Broker Architecture protocol in Alexander's router in order to report network statistics and any event communications from the router to the management system (AAPA, page 2, lines 24-25).

As per claim 4, Alexander, in view of Burt, does not explicitly disclose the router of claim 2 wherein the management system comprises a network management system/element management system.

However, AAPA teaches as known in the art, the network management system (NMS) is a defined hierarchy. The management system typically includes the NMS at an upper

level, below which are several element management system (EMS) nodes (page 2, lines 5-6, 9-10).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate AAPA's management system comprises a network management system/element management system in Alexander's router in order to collect information about and manage functions within each managed router (AAPA, page 2, lines 11-12).

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander et al. (hereinafter "Alexander", US Patent 7,269,657 B1) in view of Burt et al. (hereinafter "Burt", US Patent Publication Application 2005/0005202 A1) and in further view of Beyda (US Patent Publication Application 2004/0139179 A1).

As per claim 5, Alexander, in view of Burt, does not explicitly disclose the router of claim 1, wherein a set of transmitted one or more packets correspond to a set of packets received at the router; and

wherein the circuitry for transmitting is for transmitting the one or more packets within 60 seconds of when the router receives the set of packets received at the router.

However, in an analogous art, Beyda teaches the router monitoring operational parameters and generating reports every 10 or 60 seconds to reflect the status (paragraphs [0026-0027]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Beyda's transmitting the one or more packets within 60 seconds of when the router receives the set of packets received at the router in Alexander's router in order to indicate the health of the router and the bandwidth utilization (Beyda, paragraph [0026]).

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander et al. (hereinafter "Alexander", US Patent 7,269,657 B1) in view of Burt et al. (hereinafter "Burt", US Patent Publication Application 2005/0005202 A1) and in further view of Sanderson et al. (hereinafter "Sander", US Patent Publication Application

As per claim 6, Alexander, in view of Burt, does not explicitly disclose the router of claim 1, wherein a set of transmitted one or more packets correspond to a set of packets received at the router; and wherein the circuitry for transmitting is for transmitting the one or more packets within five minutes of when the router receives the set of packets received at the router. However, in an analogous art, Sander teaches the router generating measurements every 5 minutes (paragraph [0206]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Sander's transmitting the one or more packets within five minutes of when the router receives the set of packets received at the router in Alexander's router enabling the service provider to measure

performance continuously (Sander, paragraph [0206]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara N. Burgess whose telephone number is (571) 272-3996. The examiner can normally be reached on M-F (8:00am-4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Ettinene can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Barbara N Burgess
Examiner
Art Unit 2157

October 29, 2007

A handwritten signature in black ink, appearing to read 'Barbara', with a long horizontal flourish extending to the right.